



Rural Radio Resource Pack

No 03/2

AGRICULTURE AND HEALTH

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TECHNICAL INFORMATION

(and suggestions for using RRRPs in the studio)

Food production and health are linked in many ways. If people grow and eat better food they are better able to resist disease; if their agriculture is profitable they can afford to eat better and take preventive measures to protect themselves against disease; people who are suffering from poor health are less productive farmers; some farming practices can promote disease, others can reduce it.

Many of you have asked us to produce a resource pack addressing the issue of HIV/AIDS and agriculture; I hope you will find the interviews in this pack answer that request. More than half of the interviews specifically address the impact of AIDS on farming communities, and how this can be tackled.

Links between agriculture and health

Improving diet: It is obvious that encouraging people to grow and eat a wide diversity of nutritious foods will improve their general health, and their ability to fight disease. As one of the speakers states, preventive health is better than curative health – i.e. it is better to stop people getting ill than to allow people to become ill and then have to treat them. For pregnant women and women who are breastfeeding babies, a nutritious diet is particularly important, and for people who are HIV positive, having a good and varied diet is vital if they are to stand a good chance of remaining healthy for as long as possible.

Several interviews in this pack deal with the benefits of certain food crops. *Better nutrition through indigenous crops* discusses the importance of diversity and stresses the nutritional benefits of indigenous African vegetables and legumes as well as exotic varieties. *Sesame - high energy health food* focuses on the growing of sesame, a valuable source of energy for women farmers and their families in The Gambia, and a source of extra income. *Soya for the sick* looks at a soya-growing project in Malawi, which has taught women how to grow and cook this protein-rich bean. *Supporting AIDS sufferers* includes a mushroom growing enterprise for AIDS sufferers living in Bulawayo, Zimbabwe.

Health risks associated with agriculture: Farming is not usually regarded as a dangerous activity, but there are instances when poor farm practices can encourage the spread of disease. Obvious examples include improper use of chemical inputs such as pesticides and fertilizers. Applying chemicals without protective equipment and clothing can be dangerous. Eating sprayed crops without leaving a sufficient

interval after chemical application can also cause serious illness. There is considerable evidence of farmers experiencing pesticide poisoning, both from isolated instances of high exposure and from prolonged exposure to small quantities of chemical. Another agriculture related health risk comes from irrigation, which if poorly managed can lead to increased rates of malaria.

Zoonotic diseases: For livestock farmers, there can also be a risk of contracting disease from their livestock. These diseases which affect both animals and humans are called zoonotic diseases, or zoonoses. If farmers have cuts or open sores on their body and are handling diseased animals, they may be at particular risk. *Human-livestock diseases* looks at the subject of zoonoses, in particular the disease swine erysipelas. The interview comes from Cameroon, where many farmers keep pigs. However, the lessons about how to manage animals in order to reduce the spread of infectious disease both between animals, and between animals and humans, will be relevant for other types of livestock.

River blindness: In much of West and Central Africa river blindness is having a very bad effect on farming communities. Tiny worms, carried in the bite of the black fly, multiply into millions of worms inside a bitten person, causing a terrible itching which prevents people from working. Ultimately the worms attack the optic nerve, causing permanent blindness. Farming communities are particularly affected, because the black fly makes its home near fast flowing rivers, and of course farmers tend to live near rivers since they provide both water and fertile land. *River blindness* is an interview with a doctor who works for the charity Sight Savers International. This organisation is working to distribute drugs which can stop the multiplication of worms in the body, and also to train those who have become blind, so that they can earn a living and not need to beg.

Responding to the challenge of HIV/AIDS

Nearly three quarters of those living with HIV/AIDS in the world live in sub-Saharan Africa, and over half of these are in rural areas. More than 3 million people died from an AIDS related disease last year, and for many rural families AIDS has turned what used to be a food shortage into a food crisis. It has been found that food consumption in households affected by AIDS drops by 40%, leading to a downward spiral of low production, hunger and poverty. (Figures are from FAO/UNAIDS joint press release, June 2003)

Labour-saving technologies: Given that most sub-Saharan African countries depend on their farming labour force for their food security and economic prosperity, it is clear that farming has to adapt to cope with the massive loss of labour that AIDS has caused. One way that farming can respond is to find ways of reducing the amount of labour needed to grow its food crops. Labour-saving equipment may be an option for some. The interview *Labour-saving equipment* comes from a field day in Zambia, where the NGO Africare is promoting newly designed farming implements, such as ripper-planters, which are light enough to be used by old men, women and older children. Other ideas for reducing the amount of labour are presented in *An agriculture ministry addresses AIDS*; they include use of animal draught power, minimum tillage farming, and water harvesting for domestic purposes.

Africare is also encouraging farming communities to earn extra income by adding value to their crops through post-harvest processing, for example peanut-butter making. A similar idea is presented in *Sesame - high energy health food*, where women farmers have been given oil expressers so they can extract and sell sesame oil. Earning extra income allows people to spend money on medicines and food, and thereby improve their health.

Labour-saving crops: Growing crops that require less labour is another solution. Indigenous plants, such as vegetables and legumes, often require less laborious management than introduced ones – see *Better nutrition through indigenous crops*. Some crops, such as sesame, can be planted later in the season thereby reducing the pressure to do all the planting work at one time. Others, such as mushrooms, can be grown by those who have been weakened by disease – see *Supporting AIDS sufferers*.

Changing gender roles: Traditionally in Africa, men and women often have different tasks on a farm. For example men tend to grow cash crops, while women may grow food crops for the household. If either the man or the woman dies or becomes ill, this poses a major problem to that family's production. Either the source of income or the source of food may be lost. In *An agriculture ministry addresses AIDS* an official from the Kenyan Ministry of Agriculture's AIDS Control Unit discusses this problem, and advises that both men and women should be involved in cash crop and food crop production, so that they 'diversify their knowledge'.

What can agricultural ministries do?

The Food and Agriculture Organisation and UNAIDS have recently called on developing country governments to allocate specific funds to their ministries of agriculture, so that programmes to address HIV/AIDS can be established. Most important is that AIDS related programmes should be part of the mainstream of ministry activities. In *Sesame - high energy health food*, Dr Kujay Manneh makes the point that agricultural development programmes must recognise the capabilities of their intended beneficiaries. For example, it is no good for extension departments to be promoting labour-intensive activities to farming families who have lost their main worker. The FAO/UNAIDS report suggests that, 'A shift is needed from a production- to a client-based approach.'

In *An agriculture ministry addresses AIDS*, Dr Otieno describes how, by declaring HIV/AIDS to be a national disaster, the Kenyan government demanded that all government departments face the challenge – a point also supported in a Malawian context by *Better nutrition through indigenous crops*. On a practical level, the interview also deals with some of the ways that the Kenyan agricultural ministry is helping farmers to cope with their loss of manpower. In *Supporting AIDS sufferers*, an advocacy officer working for Christian Care Zimbabwe calls on the Government to develop policies which can reduce discrimination against those who are HIV positive or have AIDS, so that they are able to continue working and contributing to the national economy.

Helping widows and orphans to help themselves

One important area of policy not included in the pack, but which you may feel needs media coverage and discussion, relates to land tenure for women, particularly widows. Historically it has been difficult for women in some countries to claim ownership of

their husband's land if he dies. This creates the huge problem of landless, widow-headed households with no way of supporting themselves except migration to cities in search of work. Securing for women better rights to land, and greater access to inputs, information and credit, may be an important area for policy development in your country. Interviews featuring programmes targeting women and girls include *Helping orphans to help themselves*, *Sesame - high energy health food* and *Soya for the sick*.

Looking after children who have lost one or both parents - typically to HIV/AIDS – is another growing problem in sub-Saharan Africa. Apart from providing shelter and food for orphans, there is also great concern about their future contribution to the national economy. Many have had little or no education or training, either formal or informal, and are therefore unable to make a success of farming, or other occupations, when they grow up. This is likely to have a serious impact on agricultural productivity in the future. Training orphans in farming and other income-generating skills is one aspect of the work being undertaken by the NGO Help to Self Help. *Helping orphans to help themselves* features the work of the NGO in and around Arusha in Tanzania.

Using this RRRP in the studio

Exactly which issues in relation to agriculture and health you decide to cover will of course depend on your local priorities. Health is a subject you need to treat with care, not least because it is easy for people to get false information and ideas. Using an inappropriate means of treatment for a medical problem is usually more harmful than doing nothing at all. If you are not well-informed about health matters, it is important to either research the subject or find a knowledgeable contributor/commentator for your programme, especially if discussing particular illnesses.

Issues that you might aim to cover could include:

What are the links between diet, health and agriculture?

You could have some discussion of the major food groups, and the body's needs for energy, protein, vitamins and minerals such as iron. You could explore which crops/livestock products produced locally meet these different needs. The interviews *Better nutrition through indigenous crops*, *Soya for the sick* and *Sesame - high energy health food* mention the advantages of indigenous vegetables and legumes, soya and sesame respectively.

How can agriculture become less labour-intensive to meet the challenge of AIDS?

There are two main aspects to discuss here: labour-saving technologies, as presented in *Labour-saving equipment* and *An agriculture ministry addresses AIDS*, and labour-saving crops, mentioned in *Better nutrition through indigenous crops* and *Sesame - high energy health food*. It would be good to support this material with locally available ideas for both aspects – perhaps Africare or a similar organisation is promoting labour-saving implements in your country. What local indigenous crops can prosper with minimal management and inputs? You might want to explore other ways that farming families can reduce their daily workload – e.g by being given better access to rural markets, clean water, or electricity through improved infrastructure.

How can governments better support the health status of their farming communities?

You may wish to get some input from a government spokesperson on this subject. What are the key health issues in farming communities that the government needs to address, and how is it doing so? Is extension work being done differently to reflect the situation created by HIV/AIDS? Does the access of women, particularly widows, to land and resources need to be improved? What is the government doing to raise awareness about disease risks among rural communities? The interviews *An agriculture ministry addresses AIDS* and *Supporting AIDS sufferers* may help to generate discussion on these issues.

What is the future of farming, given the impact of AIDS on farming communities?

You may wish to invite or interview a guest speaker who can talk about projections for agricultural production over the next decade or so, given the loss in manpower and expertise as a result of HIV/AIDS. Another aspect to look at is the situation of orphans, and what needs to be done to ensure that they have a good and productive future. NGOs working with orphans ought to be able to give you some input on this subject. The work featured in *Helping orphans to help themselves* could also be discussed.

How can farmers avoid insect-borne diseases?

The diseases malaria and sleeping sickness are both carried by insects, and both have a link to agriculture. While they are not discussed in detail in the pack, they are definitely worthy of coverage in your programmes, if you can identify suitable interviewees or other sources of information. River blindness is dealt with in the pack and will be an important issue in west and central Africa. Unfortunately the disease is a difficult one to avoid without actually moving away from the affected areas, but raising awareness about the symptoms and the availability of treatment is important for those at risk.

What particular health issues are important for livestock keepers?

The interview *Human-livestock diseases* deals mostly with swine erysipelas, a disease of pigs which can be fatal in humans. However, for those in countries where pig-keeping is less common than Cameroon, the lessons about safety, hygiene and good management could be extended by a local livestock expert to cover other animals, such as cattle and poultry. Tuberculosis, which can be carried in milk, is an obvious example.

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| Contents | Duration |
|---|-----------------|
| <i>Sesame - high energy health food</i> The Executive Director of the National Women Sesame Farmers' Association in The Gambia explains the nutritional and income-generating values of the crop, particularly for pregnant and breastfeeding women. | 3'46'' |
| <i>Labour-saving equipment</i> Munachoongo Mulaya, a field officer with the NGO Africare explains how labour-saving farm equipment can be a major advantage for communities who have lost much of their manpower to diseases such as HIV/AIDS. | 4'58'' |
| <i>An agriculture ministry addresses AIDS</i> A senior staff-member from the AIDS Control Unit of the Kenyan Ministry of Agriculture and Livestock Development, discusses how agriculture, and agricultural departments, need to adapt to meet the challenge of HIV/AIDS. | 4'00'' |
| <i>Human-livestock diseases</i> Dr Kwenkam Paul of the Cameroon Ministry of Livestock, Fisheries and Animal Industries gives advice to livestock farmers on how to avoid the spread of infectious diseases, including those which can pass from animals to humans. | 4'52'' |
| <i>River blindness</i> Dr Elizabeth Elhassan of the NGO Sight Savers International explains what her organisation is doing to alleviate the problem of river blindness among farming communities in Nigeria and other parts of west and central Africa. | 5'07'' |
| <i>Helping orphans to help themselves</i> The NGO Help to Self Help is assisting under-privileged children, orphans and rural communities to learn productive skills and achieve better food production. This interview features two staff from the organisation based in Arusha, Tanzania. | 4'40'' |
| <i>Supporting AIDS sufferers</i> An advocacy officer for Christian Care Zimbabwe stresses the importance of giving both economic and moral support to those with HIV/AIDS, so that they can continue to be productive members of society. | 3'36'' |

Better nutrition through indigenous crops

3'07"

Ben Chingwalu, an agricultural officer from Mwanza district in Malawi, discusses how improved nutrition can reduce disease, and the role of indigenous crops in improving nutrition among farming communities.

Soya for the sick

3'15"

Mercy Chavula of the Orphan and Home Based Care Committee in Kuntaja traditional authority, Blantyre, Malawi, explains the benefits of growing soya, a highly nutritious crop which is having a major impact on the health of children and the sick in her community.

Agriculture and health

Sesame - high energy health food

Cue:

For women farmers who are pregnant or breastfeeding, the need for high energy foods, such as vegetable oils, is especially great. Without them, both women and their children risk becoming malnourished and sick. However, the time before and after childbirth is also a time when women's ability to farm is constrained, making them less able to grow the food they need. How to solve this problem?

One approach which has been benefiting women in The Gambia for over twenty years is growing sesame. This high oil content crop can withstand drought and poor management better than most other crops, and can also fetch a good price in the marketplace. To find out more about the advantages of growing sesame for women farmers and their families, Ismaila Senghore spoke to Dr Kujay Manneh, Executive Director of the National Women Sesame Farmers' Association of The Gambia.

IN: "Sesame is a very high oil ..."

OUT: "...with especially for women."

DUR'N 3'46"

BACK ANNOUNCEMENT:

Dr Kujay Manneh, on the advantages of sesame growing for women farmers in The Gambia.

Transcript

Manneh

Sesame is a very high oil content crop, it is about 50% of it is oil when you process it and therefore because of the higher oil content it's a very high dense source of energy. And traditionally energy has been a limiting factor in The Gambia especially at that time when before the introduction of this oil programme marasmus was an issue in this country when children will be wasting away. So having high calorie food in the family readily available by themselves, they don't have to have cash to get it they can produce it and process it and eat it even at their own level of processing.

Senghore

Now has this in any way increased their productivity?

Manneh

Of course; naturally there is a natural link between health and agriculture. If you are not well nourished your energy output is too low, your total output in production would also be very low. Its like the egg and the chicken, which one comes first? You have to have food to be well but you have to have the energy to produce food. So in terms of having the family well fed and also with the anticipation of having an additional cash from this crop overall it helps a lot in terms of increasing their motivation even to produce more.

- Senghore** *Dr Manneh healthy people are definitely more likely to produce more crops than sick people as you said and thereby earn more income. Now is there any case, justification about this?*
- Manneh** I don't think I need to do a case study to know that a weak person certainly won't produce much compared to a healthy person in terms of area coverage. Overall what I will say is the activeness of the groups, like we work with women's groups, we are working with 48 thousand women in the country on this crop. So we see the level of motivation, the activeness, their responsiveness to programmes are all indicators of good health which is linked very highly to nutrition.
- Senghore** *In a sense you will say they are now able also to accrue more income whereby they can meet their medical bills and also take care of other health problems and the feeding of the family?*
- Manneh** Well I will first of all start by saying preventive health is better than curative health and therefore if they are healthy they reduce the level of need for curative health. And as a result and in addition to the fact that they have probably higher incomes now than without the sesame intervention because the sesame is really a cash crop for them and it brings direct cash income into the family. That income is a disposable income that is available to them to use for food, to use for medicine. Of course it is still very limited if you take the overall budget requirements of the farmers we still have a lot of work to do to build on the achievements of this programme and we are trying to do that.
- Senghore** *Now finally doctor, could you give me any practical advice to people who might be in similar situations either in The Gambia or elsewhere world-wide?*
- Manneh** In terms of linking it directly with agriculture and health the relationship is too obvious. Very often we tend to introduce projects that are too labour intensive, difficult to manage and those are not useful for women who have very long hours. The involvement in the family is so high that they spend so much time doing work that whatever innovations we want to offer them they must take into consideration the time-need of the women and the drudgery. They must be linked, they must be activities that recognise these problems of the communities we work with especially for women. *End of track.*

Agriculture and health

Labour-saving equipment

Cue:

It's widely acknowledged that HIV and AIDS pose an enormous threat to food production in many of Africa's agriculture-dependent countries. For anyone to die from AIDS is a tragedy, but in Africa, many of those who are dying are the backbone of the farming labour force. How can those who are left behind, the very old, the very young, the widows and the orphans, manage to grow the crops they require for their own food and income needs? One answer, being promoted by the NGO Africare, is the use of labour saving technologies, that allow cultivation of sufficient areas of land with much less human labour than has been needed in the past. Africare has designed new implements, such as ploughs, planters and harvesters, which can be operated even by old people or fairly young children. Chris Kakunta recently visited a field day in his home country of Zambia, to find out more about the equipment Africare is promoting. He sent us this report.

IN: "I am here at the Africare ..."

OUT: "... You are most welcome."

DUR'N 4'58"

BACK ANNOUNCEMENT:

Chris Kakunta reporting from Magoye, Zambia, on new labour-saving equipment being promoted by the NGO Africare.

Transcript

Kakunta *I am here at the Africare stand, Magoye, Mazibuka, some 150 km south of Lusaka. Africare is one of the NGOs that has come to exhibit some of their equipment that they are promoting among small scale farmers at this year's field day, particularly to small scale farmers who are vulnerable. And with me is Munachoongo Muleya, the field officer with the organisation. To start with Munachoongo, what are some of these equipment that you are trying to promote?*

Muleya What we are doing actually, we are looking at two main areas. We are looking at conservation tillage and crop processing. So what we have here are conservation tillage implements and we have post-harvest machinery.

Kakunta *How can the farmers benefit from this equipment that you are promoting?*

Muleya You know these days, Chris, we are talking of HIV and AIDS, and actually we are talking of farmers who have lost their animals due to Corridor [disease]. And what you can see here, we have the rippers, we have the groundnut lifter, we have the cultivators, we have the weed-sweep. These implements that you see can be used by a farmer who has maybe two oxen. That farmer can use and actually rip the field as much as he wants.

- Kakunta** *Let's take for instance the ripper, this one, which is looking like a small plough really.*
- Muleya** *Actually this ripper that we are seeing here, it's a ripper that can be used by any farmer, and what we have done it we have just designed this attachment and then you put it onto the usual beam. You know these beams at our farms, the plough beams that we have, you know the farmers have this tendency of saying, 'No, they have brought up this new technology but it is very expensive.' Everything now we are making, it has to be fitted on the old beam, the old plough beam that we have on our farm. So you just have to attach the ripper to the beam which we have; then you use it to make your own furrows at the farm.*
- Kakunta** *When you came up with all this equipment, what was in your mind?*
- Muleya** *You know if you go to the villages now, Chris, you only find the old and the young. And actually in the villages there, the people who do most of the work are the women. Now we are saying, since we have the old men there at the farms, we have the old men in the village, if we bring these implements, and you can see on that poster Chris, that's a poster for a maize sheller, and that's a poster for a ripper, you know these men they get interested. The next thing you can see there is the ripper planter. Instead of the women following the animals everyday, the man will just put on the ripper planter, put the seed, he will make the furrow, he will plant, and the same ripper planter you are seeing has a covering mechanism. You rip, then it plants behind, and it covers. Then it does three jobs at once. So it will be easier for the old men in the village there to do the work alone.*
- Kakunta** *How are the vulnerable, the women and children, the widows and orphans, how are they able to access some of this equipment. Do you have a mechanism in place?*
- Muleya** *We don't give direct loans, but we work with lending institutions like micro-bankers trust, and women finance co-operatives. These people, when we go into the villages, we go with them, and the farmers are able to access money from these lending institutions and are able to buy our machines. I can give you an example; that group that you can see there is Manyama farmers group. They were able to access that peanut butter machine and now here in Magoye, these women are making peanut butter. That means the family and themselves, even their husbands - you can see that husband there is getting interested, because there is money coming out. And that peanut butter, actually, when you talk of HIV and AIDS, they can use it for the porridge, for the children. They can put it in relish. And you know it makes life easier.*
- Kakunta** *What about the health concerns. How are you addressing them?*

Muleya Actually Chris, on health, it's not direct, that we go to those people who are directly affected by HIV/AIDS. We are targeting those people who are there in the villages, who have remained. We are talking of the old and the young. You know, the old ladies who are looking after the orphans and those orphans who have been left; we don't want these people to make excuses, that's why we have made sure that we have these implements which are labour saving, which can be used by the old women - the ripper can be used by an old man, even a young boy. The ripper will just go, within two hours it will be a hectare. And that woman, what she needs is just to go and put in the seed when the rains come. That means that woman will be able to harvest; she won't even make an excuse that she had nothing to use, and that's why she is going hungry now. These farmers have to change with time, because everything is changing. Even the rains are changing. Then why don't you change the implements that you are using as a farmer?

Kakunta *I would like to thank you so much.*

Muleya You are most welcome. *End of track.*

Agriculture and health

An agriculture ministry addresses AIDS

Cue:

In 1999 the Kenyan government declared the spread of HIV/AIDS a national disaster. As a result, tackling the spread of the virus became a task not just for the Ministry of Health, but for the whole cross-section of government departments. In the Ministry of Agriculture and Livestock Development an AIDS Control Unit was set up to address the problems AIDS was causing among Kenya's farming communities, and to reduce the rate of infection among farmers. But how can agriculture change to cope with the loss of manpower and income that AIDS has inflicted? To find out, Eric Kadenge visited the AIDS Control Unit, and spoke to one of the senior staff there, Dr Samuel Otieno. Eric began by asking Dr Otieno to describe the impact that AIDS has had on agricultural production in Kenya.

IN: "HIV/AIDS has affected agricultural ..."

OUT: "...impact of AIDS on the farmer"

DUR'N 4'00"

BACK ANNOUNCEMENT:

Dr Samuel Otieno, with some practical measures for farming communities living in the shadow of AIDS.

Transcript

Otieno

HIV/AIDS has affected agricultural production in so many ways. First I'll quote some of the research studies which have been done locally. This was done in the commercial farms in the sugar belt in Nyanza (Province). Now they found that by 1995, the losses in agriculture due to HIV/AIDS in those commercial farms was about 296 million Kenyan shillings. Now they predicted that if the trend continues, by the year 2020 it is estimated that this will be about 2.2 billion Kenyan shillings. At the same time, in terms of human resource it was estimated that by 1990, the total number of lost workdays was about 45,000 person years. And again it is estimated that unless the trend changes, by the year 2020 the loss will be 329,000 person years. In some parts of the country for example Bondo district, we are now having 30-40% orphan headed or grandparent headed [households].

Kadenge

Now given that Kenya is one of the countries with a high HIV prevalence rate and the same time a country that depends on agriculture to boost its economy, what are some of the measures that your ministry is undertaking to try and go around this problem?

Otieno

First at policy level the Government declared HIV/AIDS a national disaster in 1999. Now this led to the formation of the AIDS Control Unit in the Ministry of Agriculture and Livestock Development. Now in this we have managed to train trainers, and these officers are expected to mainstream the HIV/AIDS programme in the agricultural sector by talking to their fellow colleagues and by talking to the

farmers as they go visiting the farmers. Gender is a very strong issue when it comes to production in agriculture because most of our production is culture sensitive. There are specific roles for specific sexes. For example the males are mainly in cash crops and the females or women are mainly in household food security. Once you lose the man, the cash crop is affected. Studies show that the death of a man leads to the loss of about one acre of cash crops while the loss, the death of a woman leads to deterioration of food security in the household. So we are now talking to the farmers, we are telling them to diversify the knowledge. For example, there is no need for the woman to produce only specific crops while the man produces specific crops. Loss of one of them means loss of production so we are addressing the gender issues. Now the death of the farmer means loss of labour. We are now trying to tell the farmer to use less labour-intensive means of production.

Kadenge *When you talk of something like less labour-intensive ways of farming, what are some of the alternatives that you offer the farmer?*

Otieno For example we are trying to advise the farmer to go for the indigenous crops, for example sweet potatoes, cassava, *kunde* (cowpeas). Why? Because these crops need less labour, they need less input, and also they are very hardy and they are very highly nutritive. Now another way is the use of draught animal power. For a long time in this country we have been using animals to do the ploughing but because of harsh economic conditions, many people sold their animals. Now we are saying you go back and use draught animal power to produce. There are other innovative ways for example, minimum tillage. We are again advising the farmer, 'It's a new concept where you don't have to till the whole land. You can plant and only till minimally.' Another thing is time saving; again we realise that most of our farmers spend a lot of time doing other things for example looking for water. One report indicates that in one district, it takes up to 8 hours to get water for the household use. So we are trying to advise the farmer now, 'Why don't you harvest the water so that you save the time to go and do farm work?' We believe these measures are going to address the impact of AIDS on the farmer. *End of track.*

Agriculture and health

Human-livestock diseases

Cue:

While it's always possible for accidents to happen on a farm, especially when using heavy or sharp equipment, farming is not usually regarded as a very dangerous occupation. However, there are health risks that many farmers are not aware of. Chemical fertilizers and pesticides, for example, if handled or applied wrongly can cause serious illness. And for farmers who keep livestock there is also a risk of catching diseases from their animals. While the majority of animal diseases cannot be caught by humans, a few serious ones can. They are called zoonotic diseases, or zoonoses, and if they are not treated quickly they can prove fatal for human sufferers. Kwenkam Paul of Cameroon's ministry responsible for livestock spoke to Martha Chindong about the dangers of zoonotic diseases and how farmers and veterinary technicians can reduce them. Martha started by asking him to give some examples of these diseases that farmers are at risk of catching from their livestock.

IN: "Thank you very much Martha ..."

OUT: ".... This is very very important."

DUR'N 4'52"

BACK ANNOUNCEMENT:

Kwenkam Paul describing how livestock farmers can prevent the spread of infectious diseases.

Transcript

Paul

Thank you very much Martha. There are so many diseases that affect both animals and humans, which we call zoonotic diseases, or zoonoses. There are many of them, it will depend on the animal species. For example in cattle, we have tuberculosis, we have brucellosis, these are examples. In poultry we have Newcastle to some extent. In pigs we have swine erysipelas etc.

Chindong

Now doctor, from your experience among farmers and the farmers' communities, how are these diseases transmitted from animals to farmers?

Paul

For example, like swine erysipelas, which is a very important zoonosis among our pig population. Now because farmers are always working with these pigs, it entails that if the pigs come down with erysipelas, the farmers are immediately exposed. Therefore, what do we tell farmers? We tell them that you should not handle your pigs when you have wounds on your body, because lesions on the body are some of the principal routes of transmission of this disease. For example, in the recent past one of our technicians in the Douala region himself contracted erysipelas, by handling pigs, and he developed very severe fever, severe joint pains, and severe inflammation of the legs, and he had to be put under serious emergency treatment, if not his life was in great danger.

Chindong *Now how can farmers properly manage their livestock in order to prevent infectious diseases, both for themselves and their animals?*

Paul This is a very good question. The first thing, for example, is that farmers should work with the technicians. The technicians themselves should be well-informed, and they should be disposed to the farmers, they should understand their role in development, they should understand their role in fighting poverty. So when farmers work with technicians, the technicians will help them make sure they have good inputs, for example good breeding stock: good piglets or good day-old chicks, or good dairy animals. That implies that the animals must have good infrastructure; for example like the piggery. Before you plan a piggery somewhere, you must know that, whether other piggeries are within the area, and as much as possible you plan the piggery such that the other piggeries are not an immediate threat to that piggery. You make sure that you advise the farmers to construct modern piggeries. By 'modern piggeries' I mean some area, well-defined, where the animals are kept away from sun, from direct sunlight, and where they have adequate supply of water. And then you keep off all stray animals, all intruders be they humans, and then you advise the farmers not to visit other farms. Then the farmer to a large extent will reduce the chances of infectious diseases coming to his farm. But one other important thing is that you the technician yourself, you could bring disease to the farmer's farm. So definitely you yourself the technician, you must make sure that you don't visit two farms in a day, and if you are going to have meetings with farmers, it is better not to have meetings within the farm premises. You should probably have it in a neutral place, maybe a primary school or within a church area, and then you insist to farmers, you inform them that as much as possible, though working together, they should work as individuals.

Chindong *Though working together they should work as individuals. What do you mean?*

Paul By this I mean, actually I am addressing myself to pig farmers, considering the dangers of African swine fever. The emphasis for you, Martha, and myself, is that we try as much as possible to encourage farmers to work as a group, we try as much as possible to encourage them to have co-operatives. But for pig farmers, we are saying that the farmer should not go to other pig farms, he should not, he should not visit them. And even, when he goes for example to the pig market, he should not bring animals back to his farm, and once he comes back from the pig market he should not go to his farm. He should first of all have a good bath, all the dresses that he wore in the market, and his shoes, he must wash, clean them very very well. If not he will bring very virulent viruses or micro-organisms to his farm, and that will be plenty of trouble for him.

Chindong *Now, let's say farmers are already exposed to these diseases, what can they do?*

Paul

Yes if farmers are exposed to this problem, the first thing they should do is they have to go to the hospital; this is absolutely important, and this is the advice we give them, that once they feel sick they must go to the hospital. And when they go to the hospital, they should not hide telling the doctors what their occupation is, what their activities are. Because if they don't tell the doctor, the doctor may take the fever for some ordinary fever, maybe for malaria fever. So now when they tell the doctor that they are livestock farmers, since the doctor is aware of the various zoonotic problems, then he will start by eliminating first of all those zoonotic problems before attacking the other problems. This is very very important. *End of track.*

Agriculture and health

River blindness

Cue:

In any country much of the most fertile land is often found along the banks of rivers. However, for the people of West and Central Africa, rivers bring not just water and fertile soil but also danger. The danger comes in the form of a tiny worm, a parasite that is transmitted in the bite of a river-dwelling fly - the black fly. For those who are bitten the consequences are extremely serious - a terrible itching that spreads around the body, leading eventually to blindness.

Currently around 18 million people in Africa are thought to be suffering from this disease, known as River Blindness, with over 100 million more at risk. The impact on agricultural productivity and food security is huge; as well as individual farmers being unable to work, whole communities are even forced to move away from the most fertile land to escape the flies. In addition many children stay at home to care for blind relatives, and are unable to attend school. There is a drug available to treat the disease, and the manufacturers of the drug have even made it free of charge, but how to distribute it to millions of people in such a large area? That task is being addressed by a charity, Sight Savers International. Tunde Fatunde spoke to Dr Elizabeth Elhassan about the disease and how her organisation is tackling it.

IN: “When the fly bites an individual ...”

OUT: “...farm without the risk of blindness.”

DUR’N 5’07”

BACK ANNOUNCEMENT:

Elizabeth Elhassan describing attempts to control River Blindness in West and Central Africa.

Transcript

Elhassan When the fly bites an individual it deposits small worms in the individual and the worms reproduce and multiply into thousands and millions and they begin to move around the body. It’s the movement around the body that causes the itching and then when they get into the eye they damage the optic nerve and that causes blindness. But this movement around the body causes itching and so people begin to itch and as they itch they respond by scratching. It gets bad to an extent that some people will scratch with sticks, some with bottle covers, some with knives and some with brooms.

Fatunde *What is the effect of this on their farming activities?*

Elhassan It reduces productivity because people get carried away from what they normally would do. Rather than spend time on their farms whether its planting, its weeding or harvesting, people spend all the time itching and scratching.

- Fatunde** *At what point can one say that Sight Savers International intervene in helping the farmers and how?*
- Elhassan** Well Sight Savers International has intervened in two aspects in helping the farmers. We help to distribute the drug Mectizan which is donated free by Merck Sharp and Dohme to the communities that have the disease.
- Fatunde** *What has been the impact of the taking of these drugs by the farmers on their level of productivity on their farms?*
- Elhassan** It has reduced the burden of the disease on the farmers from itching and scratching and also prevented those that are going blind from getting blind. And therefore farmers now have more time to spend on their farms and also farmers are able to do their work better and reap the fruits of their labour.
- Fatunde** *What are the long term plans to help these farmers improve upon their level of productivity because it looks as if this River Blindness disease is a recurrent phenomenon?*
- Elhassan** How we have addressed that is actually through our farmers that are irreversibly blind. In the case of farmers that are irreversibly blind, that need additional help, what we've done is set up a community based rehabilitation programme in which we have collaboration with the Department of Agriculture, Department of Social Welfare and Department of Health. There we have a clear inter-sectoral collaboration.
- Fatunde** *What kind of occupation can they engage in?*
- Elhassan** It depends on the person's choice but a lot of them because they are traditionally farmers, opt for farming. And so we get the 'agric' extension officers, train them on how to train a blind person on mobility skills before they can now introduce training of the blind in agriculture.
- Fatunde** *Which means your level of intervention is two: first those who have not attained level of blindness and those who are irreversibly blind. Now what happens to the children of these two categories? Do they stay in the farm or do they move to the towns?*
- Elhassan** In the first group of people that are not yet blind the people remain in the communities with their children because their children are also treated. But those that are blind, if you don't start with them early then they tend to move with their children into urban areas to beg. But the moment you rehabilitate them within their communities the children remain in the communities with them.

- Fatunde*** *So are we having a generation of younger people who, because of the treatment they get stay in the farm and in the process help their parents, or get discouraged? What's your own observation on the ground?*
- Elhassan** We are having a generation of people that are remaining in the communities because the drugs are available to them and it's free. And you have also these children within the communities, they are the ones we also use to distribute the drugs, they are volunteers and they are also members of the group that are also volunteering to be trained as rehabilitation assistants.
- Fatunde*** *Have you noticed the difference in the method of farming and level of productivity of this younger generation compared to their parents?*
- Elhassan** We've noticed an improvement and a difference because now the children from this generation know that they can continue to farm without the risk of blindness. *End of track.*

Agriculture and health

Helping orphans to help themselves

Cue:

One major impact of AIDS and HIV on farming communities has been a devastating loss of manpower, both from those who fall sick, and from those adults and children who have to care for them. However, as well as this loss of manpower, AIDS is also killing off knowledge and skills. Children who lose one or both parents to AIDS are often forced to leave school in order to work or beg for money, and as well as losing their chance of formal education, may also get no informal training in agriculture or other life skills. There is now a real worry that a very large number of the next generation of Africa's farmers will not have the knowledge to grow the crops that African countries depend on.

Clearly something has to be done to address this situation, whether by governments or local groups. Help to Self-Help, based in Arusha, Tanzania, is one such local organisation that is doing just that. Working with under-privileged children and orphans, the staff of Help to Self-Help teach skills that will enable the children to earn money and grow food. Lazarus Laiser recently visited a school set up by the organisation, and spoke to Method Lyaruu, one of the education project advisors.

IN: "We decided to start a school ..."

OUT: "...from these two villages."

DUR'N 4'40"

BACK ANNOUNCEMENT:

Method Lyaruu ending that report from Arusha, Tanzania.

Transcript

Lyaruu

We decided to start a school which will take girls, under-privileged girls so that they can learn some skills in order to run their lives. As you have heard that our name is 'Help to Self-Help Project' means that we help them a bit so that they can help themselves. We used to take those who have got no fathers, no father, no mother, maybe they have died from HIV, maybe thrown away in the street and then they have grown up, they don't have anywhere to get help and then we are dealing with them. But also we are dealing with the other people outside Arusha municipality. In some few villages we are giving them some assistance in agriculture in order to help themselves in their lives in the families.

Laiser

In agricultural area how do you help these students or these youth?

Lyaruu

Ok here, a part of these skills they are getting, we have got a garden here. We are teaching them how to take care of the garden especially to these vegetables so that maybe sometimes if they have got time from their skills then they can involve themselves to their area where they can get maybe vitamins and other things. But mostly we are doing this in order to have more than two things; they can do their skills and then

in their part-time they can do gardening so that they can help their families.

Laiser *Method, would you allow me to visit the garden?*

Lyaruu Oh yes definitely it's allowed, you can go and see it.

Laiser *Method now I can see a very, very good garden here. Who is responsible in this garden?*

Lyaruu We have got here Mama Makundi, she's here.

Makundi I'm Mama Makundi, I'm teaching the girls how to plant a garden. So we have a garden here in our school. We have planted different kinds of vegetables and also herbs. We have planted herbs also which they can use in cooking, so here they learn about herbs and vegetables to help them in their own lives. They can employ themselves through gardening.

Laiser *Do you do also in villages?*

Makundi Yes they have to do the same in their home lives. So I try to make follow up if they are doing the same as we taught them or not. So some of them have already started their own garden.

Laiser *Mr Method while we are standing on this garden I would like also to ask you about now what you are doing in the villages?*

Lyaruu Ok we've got three villages at the start. In Likamba we have got these cover crops. We encourage them to put cover crops because there at Likamba they have got serious soil erosion. Then we have got Manyire in this Arumeru district also. We have got horticultural to nursery school kids. It is very interesting that we are teaching nursery school kids how to keep vegetables. And these kids are from 4 years to 6 years. We give to each a piece of garden and then we plant something there and we teach how to take care.

Laiser *Can a 4 year old child learn how to take care of his own garden?*

Lyaruu Yes, yes, yes according to what we have found in our research, she can or he can, watering the garden, he can make some weeding in the garden. Apart from this we have been helping them for more than 10 years for seeds, the whole village, these two villages.

Laiser *You provide the seeds?*

Lyaruu We provide the seeds to them. But this year we've decided to stop on giving them seeds always. What we have done, we have started a project which can help them to produce their own seeds. So we have given them foundation seeds so that they can grow and produce seeds

themselves, so that they will stop coming and getting help always because our project is Help to Self-Help. You are to be helped, then you can help yourself. That is what we are doing. Now this year we have started this and we have seen a fruit because we are expecting to harvest more than 2000 kilograms of seeds from these two villages.
End of track.

Agriculture and health

Supporting AIDS sufferers

Cue:

One of the tragedies of the AIDS pandemic is that some of those who know they are HIV positive, or have even developed AIDS itself, continue to spread the disease. Many may feel they have nothing to lose. But how can this kind of attitude be changed? Clearly an important step is to make HIV and AIDS sufferers feel that they are still valued by their society - that their lives are not worthless. Achieving that goal requires action on many fronts: governments need to develop policies to prevent discrimination against HIV/AIDS sufferers, and there also need to be employment opportunities for those who have been weakened by the disease. Creating support networks and increasing public awareness about the disease are also important. This kind of holistic approach to AIDS is being strongly advocated by a charity working in Zimbabwe, Christian Care. In this report Sylvia Jiyane talks to Joseph Gari, an advocacy officer for the organisation. She begins by asking him to explain the links between agriculture and health.

IN: "There is a link between ..."

OUT: "...negative impact on our agriculture."

DUR'N 3'36"

BACK ANNOUNCEMENT:

Joseph Gari, an advocacy officer for Christian Care Zimbabwe.

Transcript

Gari There is a link between agriculture and health. A healthy labour force is a prerequisite for a successful agricultural production. So what it means is like if the labour force is not healthy then there is no genuine agricultural production to talk of. On the other side agriculture has also an effect on health if its not done in the proper way. I mean in terms of sanitation. Like irrigation and the like, they can help breed mosquitoes and then at the end of the day we have malaria and that malaria's going to affect people's health. We can have other diseases like Bilharzia, which can be caused if agriculture's not done in the proper way.

Jiyane *Which one would you say is number one problem for Zimbabwe as we speak?*

Gari I think the HIV/AIDS pandemic is the problem that is actually facing the nation.

Jiyane *And you as an organisation, what are you doing to help the situation?*

Gari We have got AIDS awareness programmes, advocacy programmes, some income generating programmes which are all aimed at helping people who are HIV/AIDS infected and also those who are affected.

Jiyane *Would you cite an example?*

- Gari** Yes we have got a programme which is done in urban area on the periphery of the Bulawayo city, that is a mushroom project. We've realised that this project could help those people who are both affected by HIV and infected in the sense that it doesn't require a lot of manual input. Simply to take a bucket to water the mushroom and at the end of the day they can have something that they can eat and also have income because they will sell the mushrooms to the people.
- Jiyane** *Talking about the same mushroom project, how does the community appreciate the growing of mushrooms since they are HIV positive?*
- Gari** Very good comments are coming out of it. One good part of it is like we are also providing the material that is needed for that programme to be successful as well as the expertise. So we have trained people, now that people are trained they are able to grow mushroom on their own. So they are appreciating the programme because one they are getting the income after selling the mushroom. Two, they are also getting nutrients from that mushroom.
- Jiyane** *And you mentioned advocacy earlier on. How does this advocacy come in to this programme?*
- Gari** We have realised that in our country there is no policy per se, that is actually catering for the people who are affected by HIV and AIDS. So we are trying as an organisation to lobby for changes in that area to the Government that let's recognise the status of the people who are living with HIV/AIDS. Let's do something, let's draft a policy that is going to accommodate those people so that at the end of the day these people are not discriminated against. On the same issue I think the government should also channel some of their resources towards rehabilitating people with HIV/AIDS. What we are trying to do is like we are trying to increase their life span so that maybe if they live longer the more impact they have on our agriculture because they have also a role to play in agricultural production.
- Jiyane** *And what would be your message to people out there in Zimbabwe about this HIV and AIDS, seeing that it's becoming a number one problem in the agricultural industry?*
- Gari** Having realised that HIV/AIDS is becoming a new frontier to development in general, into agriculture in particular my message to the people is like, let's stand up together, we fight discrimination, we fight this spread of AIDS through an enhanced network. If it means forming partnership, let's form partnership and try to fight this disease HIV/AIDS in all our efforts, so that at the end of the day its not going to have a negative impact on our agriculture. *End of track.*

Agriculture and health

Better nutrition through indigenous crops

Cue:

In the last fifty years, agricultural development in Africa has mostly been built on non-native crops; the leading example is probably maize, which originally came from Latin America. However, the development of new, higher yielding varieties of non-native crops has often come with a price, many of them requiring expensive inputs of chemical fertilizer as well as careful and time-consuming management in order to be productive. When a farming family is afflicted by disease, both its financial resources and its capacity to work are put under pressure. As a result, crop yields tend to suffer, leading to a downward spiral of poor nutrition and worsening health. Is there a way for farming communities to break out of this negative cycle? One approach being advocated by the Ministry of Agriculture in Malawi is the growing of indigenous African crops. These often have the double advantage of being relatively easy to grow, and also being very nutritious, as Excelllo Zidana found out when he spoke to Ben Chingwalu, an agricultural officer from Malawi's Mwanza district.

IN: "We are encouraging the farmers ..."

OUT: "...prepare them for their meals."

DUR'N 3'07"

BACK ANNOUNCEMENT:

Ben Chingwalu on the important links between agriculture and nutrition.

Transcript

Chingwalu We are encouraging the farmers to grow a variety of crops and to keep a variety of animals so that their nutrition is improved so that they are able to keep themselves healthy, so that they are able to work hard in their fields.

Zidana *Can you mention some of the foods which are connected with nutrition status?*

Chingwalu We have got a variety of foods which are very nutritious. Here in Mwanza we are encouraging use of indigenous as well as exotic vegetables. Indigenous vegetables are those which are naturally growing in the area and these are proved to be very nutritious because they are very green and they have a lot of vitamins, particularly vitamin C. We are also promoting the growing of traditional legumes like pigeon peas, groundnuts, beans and Soya beans. As you know Mwanza is renowned for fruits, particularly the tangerines. So we are promoting the growing of tangerines so that farmers can also utilise them. We are also promoting the growing of roots and tubers. We are talking about cassava, sweet potato, white potato which some people call Irish potato. All these things combined improve the nutrition of the foods so that when they utilise these properly the people are able to get the nutritional requirements in their bodies.

- Zidana** *I remember previously you people have not been telling farmers to grow crops like what you have mentioned here. But now having gone into this programme have you noticed any impact so far?*
- Chingwalu** Yes there's been a lot of impact because first of all the crops which were not emphasised previously are easy to grow, they don't need a lot of inputs. These were ignored previously in our messages but now we are emphasising them and we have seen that they are nutritious and you see helping the farmers to improve their nutrition. We are emphasising on improving their traditional methods of growing these crops. So it's really helping, it's making an impact.
- Zidana** *What are some of the examples of the diseases which are associated with the lack of nutritious food?*
- Chingwalu** A wide variety of diseases, we are talking about kwashiorkor and marasmus, and I can say in general all diseases. When a person is not well fed, when a person is weak, he's prone to attack by another disease and you know the impact of HIV/AIDS is going to be paramount because the people are very weak, so that any disease is going to attack them. So it's cheaper for the government if people are well fed, they are able to prevent the diseases instead of going to the hospital. So we are going to save our hospital bills when the farmers improve their diets.
- Zidana** *Do you normally do some activities together with those from the Ministry of Health?*
- Chingwalu** Yes indeed, we work together with the Ministry of Health. For example; our members of staff in the field go to the under five clinics where they work together with the Ministry of Health officials to teach farmers on the production of nutritious foods that can be prepared locally here. So we are working together with the Ministry of Health as well as other Ministries so that we link together in terms of production so that our farmers can produce good quality foodstuffs and prepare them for their meals. *End of track.*

Agriculture and health

Soya for the sick

Cue:

In Malawi, Non Governmental Organisations are partners with government in making efforts to uplift the livelihoods of the communities. In this age of the HIV pandemic, government resources are barely enough to go round all those who need them most in the health sector. It is for this reason that the Adventist Development and Relief Agency-ADRA- has come up with an innovative idea of introducing the growing of soya beans in some communities. The crop can be used as a cash crop and it is also a very rich legume in protein which is transforming the lives of malnourished children as well as the sick including those whose ailments are associated with HIV/AIDS. Let us join Patrick Mphaka as he visits one such community in Traditional Authority Kuntaja in Blantyre District.

IN: "I am walking along ..."

OUT: "...I am Patrick Mphaka. (Song continues and fades out)"

DUR'N 3'15"

BACK ANNOUNCEMENT:

And Patrick was reporting on a project being run by the Adventist Development and Relief Agency - ADRA.

Transcript

Mphaka *I am walking along a narrow path leading to a communal field which is 70 to 100 metres from the last house in the boundary of the village. From here I can see a group of people most of them leaning forward, perhaps an indication that they are picking the soya beans. And I am almost there now and I can see a well tended piece of land. It seems they also grew maize on this land because there are some left-over husks all around me. (Song) The women and few men around here have broken into singing, praising the development taking place around here, one of them being the introduction of soya beans which they are mentioning in their song, which they are claiming is improving the nutrition status of their malnourished children and home based patients.*

Chavula My name is Mercy Chavula. I am the chairperson for the Orphan and Home Based Care Committee in our village. Today we came here to harvest our soya beans from the community garden.

Mphaka *I am wondering, is it very beneficial to grow Soya beans here?*

Chavula Initially we had no idea that the crop is this nutritious. We used to know that there is soya and we used to see it. But when this ADRA project started, they opened our eyes to the great potential of soya. We now extract milk from soya; can make cakes using its flour, and can also apply the flour into any other relish to make it more nutritious. We use soya to feed the under-nourished orphans and the sick. But of

course, everybody else eats as well. There is a noticeable improvement in the health of children who used to be under-nourished, and the sick gain some appetite with soya beans.

Mphaka *What is the future of soya beans with the phasing out of the ADRA project next year?*

Chavula We are not very worried. I think we have been empowered enough to continue. We know how to prepare it nutritiously for food, and above all, we know how to grow it. We feel that very soon, we shall be growing it in larger quantities for sale as well. We have been made to understand that the price at the market is higher than other crops.

Mphaka *(Song) As the harvesting of soya beans continues with prospects of increased acreage in future, so does the singing. A sign of celebration and satisfaction with the way the health of the community is being improved. From Blantyre, Malawi, I am Patrick Mphaka. (Song continues and fades out). End of track.*